

CLAIM AMENDMENTS

1-39 (canceled)

40. (currently amended) A method for producing magnetically active shape memory metal alloy containing nickel, manganese and gallium, comprising:

- a) melting nickel and manganese to form a nickel-manganese master alloy,
- b) cooling the master alloy,
- c) crushing the master alloy,
- d) adding gallium to the crushed master alloy,
- e) melting the crushed master alloy with the added gallium,
- f) homogenizing the melt essentially at the melting temperature,
- g) ~~east~~ casting the obtained ~~pouring the~~ nickel-manganese-gallium alloy, alloy from step f), and
- h) subjecting the nickel-manganese-gallium alloy from step g) to directional solidification at 10-100° C below the liquidus temperature of said nickel-manganese-gallium alloy.

41. (previously presented) A method according to claim 40, comprising placing the gallium in a crucible, adding the crushed master alloy to the crucible, and melting the crushed master alloy with the gallium.

42. (currently amended) A method for producing magnetically active shape memory metal alloy containing nickel, manganese and gallium, comprising:

- a) melting nickel and gallium to form a nickel-gallium master alloy,
- b) cooling the master alloy,
- c) crushing the master alloy,
- d) adding manganese to the crushed master alloy,
- e) melting the crushed master alloy with the added manganese,
- f) homogenizing the melt essentially at the melting temperature,
- g) ~~east~~ casting the obtained ~~pouring the~~ nickel-manganese-gallium alloy, alloy from step f), and
- h) subjecting the nickel-manganese-gallium alloy from step g) to directional solidification at 10-100° C below the liquidus temperature

of said nickel-manganese-gallium alloy.

43. (previously presented) A method according to claim 42, comprising placing the manganese in a crucible, adding the crushed master alloy to the crucible, and melting the crushed master alloy with the manganese.